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HALL PRIDDY & MYERS
200 10220 RIVER ROAD
POTOMAC, MD 20854

EXAMINER

HANNETT, JAMES M

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/386,506
Filing Date: August 31, 1999
Appellant(s): RAAD, ELIE-JEAN

Matthew A. Pequignot
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/23/2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 1 and 4-8 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 9 and 13-15 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,011,661	Weng	1-2000
4,104,649	Tanaka et al	8-1978
5,455,711	Palmer	10-1995
JP-10073864	Nemoto	8-1996

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,011,661 Weng in view of USPN 4,104,649 Tanaka et al in further view of USPN 5,455,711 Palmer.

As for Claim 1, Weng depicts in Figure 1 a quick change lens mount for connecting a lens assembly to a camera board, Column 2, Lines 42-45; the camera board is viewed as the circuit board. The camera board having a image recording device (3), a filter (2) and a filter frame (14) to position the filter over the image recording device, The image recording device is viewed as the CCD (3) and the filter is viewed as the color filter (2), the filter frame is viewed as the color filter chamber (14). Comprising: A base (1) attached to the camera board having a

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quick connect coupling for removable coupling to the lens assembly; means for affixing the base Figure 2, filter and filter frame to the camera board. Column 2, Lines 17-34; The quick connect coupling is viewed as the threaded chamber (11) in that it allows for a quick connection of a lens assembly the base is viewed as the optical holder (1), the means for affixing the base is viewed as the screw holes depicted in Figure 2. Weng does not teach that the base has an interior opening and the quick connect coupling comprises a pair of slots to permit passage of a key affixed to an end of the lens assembly and a pair of keyways extending circumferentially from ends of corresponding ones of the slots, the slots and keyways dimensioned to receive keys of a lens assembly so as to lock the lens assembly to the base upon engagement of the keys of the lens assembly to respective keyways on the base.

Tanaka et al depicts in Figure 12 the use of a camera that has a base (30) that has an interior opening and the quick connect coupling comprises slots (29) to permit passage of a key (35) affixed to an end of the lens assembly and keyways (29) extending circumferentially from ends of corresponding ones of the slots, the slots and keyways dimensioned to receive keys of a lens assembly so as to lock the lens assembly to the base upon engagement of the keys of the lens assembly to respective keyways on the base. Tanaka depicts a lens assembly that is coupled to the camera base by inserting the lens assembly into the cylindrical opening of the base and rotating the lens assembly so that the lens assembly is locked to the base. Column 14, Lines 20-35 and Column 14, Lines 56-68; The camera base is viewed as the inputting device (30), the slots are viewed as the three arcuate recession points (29a-c), the keys and keyways are viewed as the arcuate projection pawls and the projection pawls. Tanaka is implemented by a user inserting the lens assembly into the slots on the base so that the extending Pawls or keys can

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enter the base. The lens assembly is then rotated so that the keys and the keyway will engage with each other and lock the lens assembly to the camera base. Tanaka teaches the use of three keys and keyways equally spaced from one another. It would have been obvious to replace the three keyways with a two keys spaced equally apart or for that matter four keys and keyways placed equally apart so as to engage with each other. This design of a base and lens assembly with keys and keyways is beneficial over a threaded connection because it allows for a faster replacement of a lens assembly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the threaded portion of the base of Weng with the Base of Tanaka with keyways so that a lens assembly with keys can be connected to the base to allow for a faster replacement of a lens assembly.

Weng in view of Tanaka et al teaches that it is advantageous to have the connection on the camera base correspond to a pair of slots to permit passage of a key and a pair of keyways since the coupling of Tanaka et al only needs to be rotated 60 degrees to connect the lens to the camera body. However, this method does not allow lenses that are threaded to be connected to the camera base. Furthermore, Weng in view of Tanaka does not teach that the lens assembly has a removable adapter having a threaded interior opening to receive a threaded end of a lens housing and a base insert end, the base insert end having keys for engagement with the keyways. Weng teaches that the lens assembly has a base with threads to engage with threads on the base of the optical holder.

Palmer teaches in Figure 1 and on Column 5, Lines 37-53 that it is advantageous to have a coupling adapter that has threads on one side that correspond to the threads of the base of a

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camera and threads of a different size that correspond to the threads of an optical lens assembly so as to allow for an unassociated lens assembly to be coupled to the optical housing. This adapter is designed to have connection means on one end that correspond to the type of connection means of the camera base, and connection means on the other end that correspond to the type of connector used on the end of a lens assembly. Palmer does not depict that the adaptor has keys to engage keyways on the optical housing because the optical housing has threaded fastening means as also taught by Weng. However, Weng in view of Tanaka et al teaches that it is advantageous to have the connection on the camera base correspond to a pair of slots to permit passage of a key and a pair of keyways since the coupling of Tanaka et al only needs to be rotated 60 degrees to connect the lens to the camera body

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera system of Weng in view of Tanaka et al with an adapter as taught by Palmer that has threads on one side to connect a lens with a threaded coupling and to provide on the other side of the adapter coupling means that corresponds to the coupling mechanism of Tanaka. In order to allow lenses that are threaded to be connected to the camera base of Weng in view of Tanaka et al

As for Claim 9, Weng depicts in Figure 1 and teaches on Column 2, Lines 42-45 and Column 1, Lines 40-50 a method of mounting a lens assembly to a camera board, comprising:

Forming a base (1) to fit over and lock to an end of the lens assembly; mounting the base over an image recording device (3) and affixed to the camera board; inserting and locking the lens assembly to the base. The base is viewed as the optical holder, the base locks to the lens

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assembly by means of the threads (11) and the locating hole (18), which locks the lens assembly in place, and the camera board is viewed as the circuit board.

Weng does not teach that the base can have a cylindrical opening with slots and keyways on an interior surface thereof, which slidably receives and engage keys on an end of the lens housing.

Tanaka et al depicts in Figure 12 the use of a camera that has a base (30) that has an interior opening and the quick connect coupling comprises slots (29) to permit passage of a key (35) affixed to an end of the lens assembly and keyways (29) extending circumferentially from ends of corresponding ones of the slots, the slots and keyways dimensioned to receive keys of a lens assembly so as to lock the lens assembly to the base upon engagement of the keys of the lens assembly to respective keyways on the base. Tanaka depicts a lens assembly that is coupled to the camera base by inserting the lens assembly into the cylindrical opening of the base and rotating the lens assembly so that the lens assembly is locked to the base. Column 14, Lines 20-35 and Column 14, Lines 56-68; The camera base is viewed as the inputting device (30), the slots are viewed as the three arcuate recession points (29a-c), the keys and keyways are viewed as the arcuate projection pawls and the projection pawls. Tanaka is implemented by a used inserting the lens assembly into the slots on the base so that the extending Pawls or keys can enter the base. The lens assembly is then rotated so that the keys and the keyway will engage with each other and lock the lens assembly to the camera base. This design of a base and lens assembly with keys and keyways is beneficial over a threaded connection because it allows for a faster replacement of a lens assembly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the threaded portion of the base of Weng with the base of Tanaka with keyways so that a lens assembly with keys can be connected to the base to allow for a faster replacement of a lens assembly.

Weng in view of Tanaka et al teaches that it is advantageous to have the connection on the camera base correspond to a pair of slots to permit passage of a key and a pair of keyways since the coupling of Tanaka et al only needs to be rotated 60 degrees to connect the lens to the camera body. However, this method does not allow lenses that are threaded to be connected to the camera base. Furthermore, Weng in view of Tanaka does not teach that the lens assembly has a removable adapter having a threaded interior opening to receive a threaded end of a lens housing and a base insert end, the base insert end having keys for engagement with the keyways.

Palmer teaches in Figure 1 and on Column 5, Lines 37-53 that it is advantageous to have a coupling adapter that has threads on one side that correspond to the threads of the base of a camera and threads of a different size that correspond to the threads of an optical lens assembly so as to allow for an unassociated lens assembly to be coupled to the optical housing. This adapter is designed to have connection means on one end that correspond to the type of connection means of the camera base, and connection means on the other end that correspond to the type of connector used on the end of a lens assembly. Palmer does not depict that the adaptor has keys to engage keyways on the optical housing because the optical housing has threaded fastening means as also taught by Weng. However, Weng in view of Tanaka et al teaches that it is advantageous to have the connection on the camera base correspond to a pair of slots to permit

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passage of a key and a pair of keyways since the coupling of Tanaka et al only needs to be rotated 60 degrees to connect the lens to the camera body

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera system of Weng in view of Tanaka et al with an adapter as taught by Palmer that has threads on one side to connect a lens with a threaded coupling and to provide on the other side of the adapter coupling means that corresponds to the coupling mechanism of Tanaka. In order to allow lenses that are threaded to be connected to the camera base of Weng in view of Tanaka et al

(11) *Response to Argument*

The applicant argues that the examiners assertion in the office action dated September 11, 2003 that the threaded chamber 11 as depicted in Figure 1 of Weng does not constitute a quick connect coupling. The applicant further argues that the industry standard for a quick connect coupling does not include threaded couplings.

The Examiner maintains the view that a threaded coupling can constitute a quick connect coupling because a threaded chamber can be coupled quickly. Furthermore, the examiner points out that the applicant amended the claims to further define a quick connect coupling as having a pair of slots to permit passage of a key and a pair of keyways extending circumferentially from ends of corresponding slots. In the office action dated September 11, 2003 the examiner acknowledged that the quick connect coupling of Weng did not include a pair of slots to permit passage of a key and a pair of keyways extending circumferentially from ends of corresponding slots. Therefore, the examiner relied upon Tanaka et al to teach the claimed feature. The examiner points out that regardless of whether the threaded coupling of Weng can be viewed as a

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quick connect coupling, Tanaka teaches the use of a quick connect coupling and the use of keys and keyways as claimed in the present invention. These keys and keyways are clearly depicted by Tanaka et al in Figure 1.

The examiner points out that Weng depicts in Figure 1 a threaded coupling (11) in a camera base to allow lenses to be threadably connected to a camera base. Weng does not teach that the means for connecting a camera lens to the camera base can be performed by providing a quick connect coupling that comprises a pair of slots to permit passage of a key and a pair of keyways extending circumferentially from ends of corresponding slots. Tanaka et al depicts in Figure 1 that it is advantageous to connect camera lenses (LE) to a camera base (CA) by means of a quick connect coupling that comprises a pair of slots to permit passage of a key and a pair of keyways (17b, 17d, 17c, 6a, 6c, and 6b) extending circumferentially from ends of corresponding slots. Tanaka et al teaches on Column 9, Lines 16-20 this method is advantageous because the coupling as depicted by Tanaka et al is faster than a threaded connector since the coupling of Tanaka et al only needs to be rotated 60 degrees to connect the lens to the camera body.

The system of Weng in view of Tanaka et al teaches a camera system in which it is advantageous to connect camera lenses to a camera base by means of a quick connect coupling that comprises a pair of slots to permit passage of a key and a pair of keyways (17b, 17d, 17c, 6a, 6c, and 6b) extending circumferentially from ends of corresponding slots. However, Weng in view of Tanaka et al does not teach a method that would allow for other lens systems to be connected to a camera base if the coupling mechanism for the lens system did not correspond to the coupling mechanism of the camera base of Tanaka.

Palmer teaches that it is advantageous to use adapters between different lens systems (20) and a camera base (10) in order to allow lenses that have coupling means that do not correspond to the coupling means of a specific camera to be used for said camera. Palmer depicts in Figure 1 that the adapter has threads on one side that correspond the coupling means of the lens and threads of a different size on the other side that correspond to the coupling means of the camera base.

Weng in view of Tanaka et al teaches that it is advantageous to have the connection on the camera base correspond to a pair of slots to permit passage of a key and a pair of keyways since the coupling of Tanaka et al only needs to be rotated 60 degrees to connect the lens to the camera body. However, this method does not allow lenses that are threaded to be connected to the camera base. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera system of Weng in view of Tanaka et al with an adapter that has threads on one side to connect a lens with a threaded coupling and to provide on the other side of the adapter coupling means that corresponds to the coupling mechanism of Tanaka.

The applicant argues that Claim 9 was rejected under 35 USC 102(e) by Weng for allegedly showing a method of mounting a lens assembly to a camera board, and argues that Weng does not show all the claimed features of Claim 9. The examiner points out that Claim 9 was not rejected under 35 USC 102(e) by Weng and was actually rejected under 35 USC 103 by Weng in view of Tanaka et al in further view of Palmer. Therefore, the argument that Weng does not disclose all the claimed limitations as set forth in Claim 9 is moot since the examiners grounds of rejection did not solely rely on Weng.

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For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,


James M. Hannett
Examiner
Art Unit 2612

JMH
September 7, 2004

Conferees
Wendy Garber
Christopher Kelley

HALL PRIDDY & MYERS
200 10220 RIVER ROAD
POTOMAC, MD 20854


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600